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ABSTRACT

This report is an evaluation of the Diagnostic Prescriptive Reading Services Program which was designed to increase reading ability of 134 second and third grade students in New York City. Students were referred to the program by teachers, guidance counselors, and the program coordinator. Children were then tested by the school psychologist and a prescriptive plan was implemented. The plan utilized special instructional materials, home visits, family counseling, referrals to health and guidance agencies, and individual and small group instruction. The pre and post test reading scores indicated that second and third graders improved their scores two months and eight months respectively. (JP)

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EVALUATION REPORT

Function No. 20-63418

DIAGNOSTIC-PRESCRIPTIVE READING SERVICES

1975-76 SCHOOL YEAR

MICHAEL F. GREELEY

An Evaluation of Selected New York City Umbrella Programs funded under a Special Grant of the New York State Legislature performed for the Board of Education of the City of New York for the 1975-1976 school year

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CHAPTER I: THE PROGRAM

That a significant percentage of the school population is afflicted with specific learning disabilities is well documented. These learning disabilities interfere with children's competence in school tasks, often resulting in emotional difficulties which interact with the learning disability related problem. It is often possible, however, to diagnose a learning disabled child and prescribe an appropriate remedial program which results in significantly increased achievement for the child. To allow for optimum success, it is essential that the child experiencing learning disabilities be identified as early as possible and that an effective program of remediation be implemented. To meet these needs at the early elementary level, a program of Diagnostic-Prescriptive Reading Services was instituted at P.S. 40, Queens. The program, which was a recycled project in the New York City School - Community Interaction Umbrella Program, had both an instructional and a guidance component. The objectives of the program were specified in the program proposal as follows:

1. To increase the reading ability of those second and third grade pupils identified, diagnosed and treated in learning and perceptual problems, such that, by the end of the program, those pupils in this component of the program will demonstrate a statistically significant increase in reading achievement as measured by the pre and post administration of the Metropolitan Achievement Test.

2. 70% of those first, second, third and fourth grade pupils identified and diagnosed as having school adjustment problems will have their problems defined and an initial contact made with an appropriate agency so as to institute a program of adjustment which will be measured by an evaluation of pupil records.

The staff of the program consisted of one Program Coordinator, two teachers, six educational assistants, one guidance counselor and one psychologist. The position of Program Coordinator was a tax levy assignment since the responsibilities of this position were one of the functions of the Assistant Principal of P.S. 40.

240 children in grades 1 through 4 were eligible for participation in the guidance component of the program. 134 of those children, all in either grades 2 or 3, participated in the remedial reading component.

All program participants were selected for program participation on the basis of classroom teacher referral and the concomitant judgment of the guidance counselor and the Program Coordinator for individual focus on apparent, incipient school and/or learning problems. Any area of disturbed functioning which reflected negatively on school adjustment or performance was considered. Children were then tested by the school psychologist, if necessary, and a plan of prescriptive action was developed by the professional staff. The plan sometimes involved the use of special instructional materials for children with perceptual difficulties; it included home visits and family counseling; referrals to health and guidance agencies were made and followed up; arrangements for individual or small group instruction were scheduled; and in all cases, individual attention from one or more members of the professional staff was provided which focused on specific identification of each child's particular learning and/or school adjustment problems. All of these special services were offered to individual children, according to judgments of need made by the professional staff.

All referrals to outside agencies were made by the guidance counselor assigned to the project.

CHAPTER II: EVALUATIVE PROCEDURES

The evaluation objectives specified in the evaluation design were as follows:

Evaluation Objective #1: To determine whether, as a result of participation in the Diagnostic-Prescriptive Reading Services Program, the reading grade of second and third grade program participants will demonstrate a statistically significant difference between pre and post test scores.

1.1 Subjects: All second and third grade program participants. (N=134)

1.2 Method and Procedures: The appropriate level of the Metropolitan Achievement Test (Reading) will be administered on a pre/post basis: during the months of October 1975 and April 1976.

1.3 Analysis of Data: Data will be analyzed by the "Real (treatment) Post-test vs. Anticipated (without treatment) Post-test" design.

1.4 Time Schedule: Pre-test will be administered in October 1975 and post-test in April 1976.

Evaluation Objective #2: To determine if 70% of those first, second, third and fourth grade pupils that have been identified and diagnosed as having school adjustment problems have had their problems defined and an initial contact made with an appropriate agency.

2.1 Subjects: All first, second, third and fourth grade pupils that have been identified as having school adjustment problems. (N=104)

2.2 Method and Procedures: Records of agency referrals initiated by the guidance counselor will be reviewed.

2.3 Analysis of Data: Records will be analyzed to determine if at least 70% of those children identified and diagnosed as having school adjustment problems have been referred to an outside agency.

2.4 Time Schedule: Records will be reviewed in April 1976.

Formal evaluation of the Diagnostic-Prescriptive Reading Services Program for the 1975-76 school year began in February, 1976. The evaluative effort was to focus on the degree to which the program objectives were met. Evaluation procedures included both process and product evaluation. Methods for the evaluation were as follows:

1. Direct observations of the instructional component of the program.
2. Interviews were conducted with the Program Coordinator, the guidance counselor, the program teachers and the educational assistants relative to the program's functioning.
3. Evaluation of curriculum and materials used in the Diagnostic-Prescriptive Reading Services Program.
4. Discussion with pupils regarding their activities.
5. Metropolitan Achievement Test scores in Reading were analyzed on a pre- and post-test basis.
6. Pupil records were examined during the first week of May to determine the number of referrals and contacts made with outside agencies.

In order to accurately record information, it was necessary for the evaluator to develop the following instruments: a reading observation form and a project data form. A data collection form

was also developed to enable the teachers to provide the evaluator with the necessary pre and post-test data.

CHAPTER III: FINDINGS

The Reading Component

A total of 134 children participated in the reading component of the Diagnostic-Prescriptive Reading Services Program. This facet of the program provided small group instruction to 76 children in grade 2 and 58 children in grade 3.

The criteria for the identification of target children included the following:

- those children who indicated a need for remedial assistance as indicated by their scores on the April, 1975 administration of the New York City Reading Test.
- those first grade students who indicate a need for remedial assistance as indicated by their scores on the Metropolitan Achievement Test, Primary Level.
- those students referred by classroom teachers as needing remedial assistance in reading.

It was only necessary for a child to meet one of the above mentioned criteria for possible program inclusion. Those children indicating the greatest need for services were selected for program participation.

The staff assigned to this aspect of the programmatic activities directly through Umbrella funds included six educational assistants. Two teachers were assigned through

Title I funds.

The two Title I Reading teachers utilized the diagnostic/prescriptive model to ascertain each child's strengths and weaknesses. A prescriptive plan to correct these learning deficits was designed by the teacher. To meet the wide range of needs, small group instruction was provided in phonetic and morphemic analysis, the use of contextual clues, and the development of critical reading skills. Children participated in the program 5 days a week. The length of each instructional period was 45 minutes. The size of each instructional group was 8 - 11 children with the average being 9. The teacher provided small group, and in some instances, individual instruction to all participants. The paraprofessional, under the direct supervision of the Title I teacher, provided appropriate reinforcement activities.

The wide variety of materials in regular use in the reading program were both commercially designed, as well as teacher-prepared. Materials were most appropriate for skills development in sight vocabulary, word attack skills, and in developing the various levels of comprehension. Since teachers had a wide variety of materials at their disposal, it was possible to reinforce the same skill utilizing various approaches, i.e., auditory, visual, language development and kinesthetic. The level of materials utilized paralleled the interest level and maturity of the participants. Materials were suitable to the reading ability of the program participants.

A review of students' work folders indicated that planned sequence in skill development was a policy followed by the instructional staff. Skill lessons are based on an on-going diagnosis of deficiences. Specific skill teaching was observed in word recognition, comprehension and study skills. The curriculum content of the Diagnostic-Prescriptive Reading Program stressed the acquisition of concepts crucial to the reading process. Phonics, structural analysis and comprehension were integrated into a complete Language Arts program. Reading was taught as a life-related process in which children were encouraged to verbalize and communicate orally. Phonics and sentence structure analysis were taught and a speaking-reading-writing mix was developed through the use of the various learning activities. Additionally, the program attempted to expose participants to a variety of auditory and visual activities that are intended to stimulate language development through perceptual understanding.

In order to measure the effectiveness of the programmatic effort, scores from the October, 1975 administration of the MAT, were compared with scores from the April 1976 (post) administratiom. The use of the historical regression formula converted the October, 1975 scores into a predicted post-test score for each participant.

The following table provides an analysis of test data for 2nd grade participants:

TABLE 1

Diagnostic-Prescriptive Reading Services

Pupil Reading Scores

Metropolitan Achievement Test
Primary Level

Grade 2
N = 74

Post-test Predicted	Post-test Actual
Mean = 1.82	Mean = 2.02
SD = .262	SD = .441

Correlated Coefficient (r) = .521

Value of t = 4.5
Level of significance = .001
df = 73

Gains in grade equivalent = 0.2
or 2 months

The predicted post-test mean for grade 2 was 1.82. The actual post-test mean was 2.02. This indicates a growth of 2 months beyond expectation. In applying the t-test (t = 4.5), it is observed that scores are significant at the .001 level. Based on the data, and the analysis of same, there has been a significant gain made by the second grade participants.

The test results of program participants in grade 3 were also subject to the same pre and post analysis. The following table provides an analysis of their performance.

TABLE 2

Diagnostic-Prescriptive Reading Services

Pupil Reading Scores

Metropolitan Achievement Test
Elementary Level

Grade 3

N = 47

Post-test Predicted	Post-test Actual
Mean = 1.696	Mean = 2.493
SD = .481	SD = .506

Correlated Coefficient (r) = .248

Value of t = 9.073
Level of significance = .001
df = 46

Gains in grade equivalent = 0.803
or 8 months

The predicted post-test mean for grade 3 was 1.696. The actual post-test mean was 2.493. This indicated a growth of approximately 8 months beyond expectation. In applying the t-test (t = 9.073), we can see that these scores are significant at the .001 level. Based on the analysis of this data, we can observe a highly significant increase in reading achievement as a result of program participation.

Data loss incurred was as follows:

Grade 2 - N = 2
1 student absent
1 student, new admission

Grade 3 - N = 11
11 students absent

Based on direct observation of the programmatic activities, as well as an analysis of the standardized test data, the reading program has been successfully implemented. The scores of program participants reflect achievement beyond predicted expectation. Therefore, program objective #1 has been achieved.

The Guidance Component

The guidance counselor, who assumed his position in mid-November, screened pupils exhibiting poor school and/or social adjustment and pupils with special family problems that prevented them from participating in the educational process. This screening was to clearly define each child's problem and to make the appropriate referral, where necessary. If additional pupil assessment was warranted, the guidance counselor referred program participants to the psychologist, who was assigned to the program on a part-time basis.

During the 1975-76 school year, 104 program participants, in grades 1 through 4, were referred to the guidance counselor. To ascertain the effectiveness of the guidance component, the records of all agency referrals initiated by the guidance counselor were reviewed to determine if at least 70% of those children identified and diagnosed as having school adjustment problems had been referred to an outside agency. A review of the guidance records rendered the information presented in Table 3.

TABLE 3

Diagnostic-Prescriptive Reading Services

Agency Referrals for Participating Pupils

N = 104

Action Completed	1
Pending Placement	2
Being Processed	20
Students Referred for Further Evaluation or Evaluation in Progress	54
Students Needing Further Continued Guidance Services - No Agency Needed	13
Students Not Yet Serviced	14

Of the 104 children referred to the Guidance Counselor between November, 1975 and April, 1976, 1 child had been placed and 2 children were currently awaiting placement in a C.R.M.D. class. Additionally, 20 children were being processed by the Evaluation and Placement Unit located at P.S. 112Q. The number of students referred for further evaluation or currently being evaluated was 54. Numerous community agencies were involved. A listing of the agencies is as follows:

Bleuler Psychotherapy Center
Bureau of Child Guidance, Board of Education
Carter Center/Carter Clinic
HIP Center
Mary Immaculate Hospital
Neighborhood Help Center
New York Optometric Center
Queens Child Guidance Center
Queens Hospital Center
South Jamaica Medical Center

An additional 13 children were participating in an on-going guidance program at P.S. 40. It was felt that these children would benefit most from guidance services provided directly by the Guidance Counselor assigned to the program.

During the 1975-76 school year the psychologist tested 27 children.

As of April, 1976, 14 students were still awaiting service.

It can be concluded, based on an examination of student's records, that 90 program participants were identified and diagnosed as having school adjustment problems. They have had their problems defined and an initial contact made with an appropriate agency. These agencies have implemented a program of adjustment particular to the needs of each child. A review of pupil participants indicate that 87% received service through this component. The objective stated that 70% would indicate the criteria for success. The actual results were 87%. These results far exceeded programmatic expectation.

Diagnostic-Prescriptive Reading Services had been previously evaluated during the 1974-75 school year. The evaluator recommended early administration of standardized, diagnostic tests in reading, as well as visual/perceptual tests. Further recommendations included discontinuance of the medical staff. All of these recommendations had been accepted and incorporated in the 1975-76 program.

CHAPTER IV: SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Diagnostic-Prescriptive Reading Services is a program of exceptional quality providing individualized, comprehensive preventative assistance to children presenting early indications of handicapping learning difficulties. The services of instructional, guidance and psychological staff combine to identify problems, make referrals to health and other agencies, work with families, and offer direct instruction and support to children in the classroom and school setting, in close coordination with classroom teachers. Evidence of a high-level of administration and implementation support quantitative evidence of real effectiveness. Features of the program which can serve as models for replication are:

1. Administrative support at the school level, substantiated in time, scheduling, articulated support, materials and freedom of implementation.
2. Careful, regular record-keeping and joint planning procedures.
3. True individualization of treatment, based on the records and findings at joint conferences.
4. Continuing assessment and replanning by the responsible professionals.

The evaluator recommends:

1. Recycling of this significant and effective preventative program.

2. Expansion of the program to allow for guidance staff to meet and work with homeroom teachers.

3. Wider dissemination of the findings, procedures and rationale for this effective program so that these methods may be replicated or adapted by other schools who are so motivated.

4. Additional budget for the program to permit additional professional time, and additional paraprofessional staff. This recommendation is based on the conviction that preventative treatment, of high quality, is the best long-range investment; and that excellent programs should be supported and expanded to serve as district or city-wide models.